1. **SCOPE OF SERVICES**
   1. Provide professional geologist or professional engineer with experience in hydraulic investigation services and consulting services, as outlined within the Section 287.055(2) (g), Florida Statutes, to support Lake County’s Office of Solid Waste (OSW) for assigned tasks related to, but not limited to, preparing water quality reports (event, semiannual, and technical reports), monitoring plan design, contamination assessments, providing oversight to all aspects of new monitor well installation, all aspects of existing monitor wells (including evaluation, abandonment, and repairs) on an as-needed basis in conjunction with OSW’s needs.
   2. Consultant is required to provide copies and keep current any required licensing for services.
   3. OSW is responsible for the environmental monitoring of two solid waste management facilities: Lake County Central Solid Waste Management Facility (with active and closed cells) and Umatilla Landfill (currently closed). OSW also has additional closed landfills that currently do not require water monitoring, Lady Lake Landfill and Log House Landfill.
   4. All sampling services are currently performed by County staff. A portion of the laboratory analyses are performed in-house, with the remaining analyses performed by a contract laboratory. OSW would provide the laboratory data from both labs to the Consultant in one data deliverable as needed. Examples include:
      1. Laboratory analytical data will be provided in the FDEP approved format (currently ADaPT)
      2. GIS files of each facility
      3. Electronic copies of all field sampling data sheets
      4. Water level elevations for each sampling event
      5. Survey information
   5. Services to be performed by the Consultant under this contract include but are not limited to:
      1. Provide professional geologic or professional engineering and hydrogeologic services, monitoring plan design, contamination assessments, and similar related tasks in conjunction with the County's needs.
      2. Review monitor well data and water levels.
      3. Prepare event monitoring reports and contour maps for submission to the Florida Department of Environmental Protection (FDEP).
      4. Make recommendations about future landfill groundwater monitoring based on data findings.
      5. Provide recommendations, using the landfill’s entire history, for well abandonments and be able to articulate and justify those recommendations to the FDEP on behalf of the County.
      6. Obtain all required hydrogeologic permits on behalf of the County.
      7. Provide oversight for the installation of new monitoring wells.
      8. Well installation, repair, and/or abandonment services
2. **Well Installation/Repair/Abandonment Services**
   1. Installation, repair, and/or abandonment of monitoring wells shall be included under this contract; this portion may be subcontracted out by the consultant. The consultant shall be responsible for the oversight of any third party well installations, repairs or abandonments.
   2. The monitoring wells are used for ground water quality sampling and analysis and for water level measurements. New wells shall be constructed according to the specifications and guidelines of the County, FDEP, EPA and other regulatory agencies. The consultant may be responsible for submitting plans or reports and obtaining approval for all work before and after completion through the FDEP. The consultant and the County’s Project Manager or their designee will accompany the drilling contractor to all sites for an initial visit and will be available to consult with the drilling contractor during field operations to determine well/boring depth and other matters that may arise. When drilling at landfills there is a possibility of encountering buried trash. The consultant may only subcontract out the physical installation, repair or abandonment of the monitoring wells.
3. **Reporting Requirements**
   1. Reporting requirements are based on Rule 62-701.510 F.A.C.; however, the Monitoring Plan Implementation Schedule (MPIS) or permit language may dictate other, additional requirements.
   2. Event Report - The landfill owner or operator shall report all representative water quality monitoring results to the FDEP within 60 days from completion of laboratory analyses, unless a different due date is specified in the permit. This report shall also include any leachate monitoring results obtained in accordance with paragraph (6)(c) of this Rule. In accordance with subsections 62-160.240(3) and 62-160.340(4), F.A.C., water quality data contained in the report shall be provided to the FDEP in an electronic format consistent with requirements for importing into FDEP databases, unless an alternate form of submittal is specified in the permit. The permittee shall include Form 62-701.900(31), Water Quality Monitoring Certification, effective date January 6, 2010, hereby adopted and incorporated by reference, with each report certifying that the laboratory results have been reviewed and approved by the permittee. At a minimum, the report shall include the following:
      1. The facility name and identification number, sample collection dates, and analysis dates.
      2. All analytical results, including all peaks even if below maximum contaminant levels.
      3. Identification number and designation of all surface water and ground water monitoring points.
      4. Applicable water quality standards.
      5. Quality assurance, quality control notations.
      6. Method detection limits.
      7. Storage and Retrieval (STORET) code numbers (unique to Federal Department Environmental Protection, for all parameters.
      8. Water levels recorded prior to evaluating wells or sample collection. Elevation reference shall include the top of the well casing and land surface at each well site at a precision of plus or minus 0.01 foot (using a consistent, nationally recognized datum).
      9. An updated ground water table contour map signed and sealed by a professional geologist or professional engineer with experience in hydrogeologic investigations, with contours at no greater than one-foot intervals unless site specific conditions dictate otherwise, which indicates ground water elevations and flow direction.
      10. A summary of any water quality standards or criteria that are exceeded.
   3. A technical report, signed and sealed by the consultant’s professional geologist or professional engineer with experience in hydrogeologic investigations, shall be submitted to the FDEP every two and one-half (2-1/2) years during the active life of the facility, and every five (5) years during the long-term care period, or at the period specified in the MPIS. The report shall summarize and interpret the water quality and leachate monitoring results and water level measurements collected during the past two and one-half (2-1/2) years. The report shall contain, at a minimum, the following:
      1. Tabular displays of any data which shows that a monitoring parameter has been detected, and graphical displays of any leachate key indicator parameters detected (such as pH, specific conductance, TDS, TOC, sulfate, chloride, sodium and iron), including hydrographs for all monitor wells.
      2. Trend analyses of any monitoring parameters consistently detected.
      3. Comparisons among shallow, middle, and deep zone wells.
      4. Comparisons between background water quality and the water quality in detection and compliance wells.
      5. Correlations between related parameters such as total dissolved solids and specific conductance.
      6. Discussion of erratic and/or poorly correlated data.
      7. An interpretation of the ground water contour maps, including an evaluation of ground water flow rates.
      8. An evaluation of the adequacy of the water quality monitoring frequency and sampling locations based upon site conditions.
4. **Deliverables**
   1. When applicable, the consultant shall provide to OSW the semi-annual reports as described above within thirty-five (35) calendar days after receiving the completed laboratory analyses. The reports are to be submitted in Word or Adobe format so that the track changes/comments features may be used. OSW will then review the reports within five (5) calendar days and provide comments to the consultant. The consultant will incorporate the OSW’s comments or respond to those comments and provide the final report for OSW review within five (5) calendar days, prior to the report being submitted to FDEP.
   2. When applicable, the consultant shall provide to OSW the biennial technical reports as described above in thirty-five (35) calendar days prior to the FDEP report due date. The reports are to be submitted in Word or Adobe format so that the track changes/comments features may be used. OSW will review the report and provide comments to the Consultant within fifteen (15) calendar days of receipt. The consultant will incorporate OSW’s comments or respond to those comments and provide the final report for OSW review within five (5) calendar days, prior to the report being submitted to FDEP.
   3. The consultant shall provide to OSW a digital and a non-digital copy of any submitted reports made on the OSW’s behalf.
   4. OSW will accept each monitoring well, only after all well repairs, construction, development, sampling, cleanup and reporting have been performed in a satisfactory manner and has met with the approval and acceptance of OSW.
   5. The County reserves the right to meet with the consultant to discuss recommendations made in any report. All reports shall be signed and sealed by the professional geologist or professional engineer overseeing the project.
5. **Key Contractor Personnel**

In submitting a proposal, the Proposer is representing that each person listed or referenced in the proposal shall be available to perform the services described for the Lake County Board of County Commissioners, barring illness, accident, or other unforeseeable events of a similar nature in which case the Proposer must be able to promptly provide a qualified replacement. In the event the Proposer wishes to substitute personnel, the Proposer shall propose a person with equal or higher qualifications and each replacement person is subject to prior written County approval. In the event the requested substitute person is not satisfactory to the County and the matter cannot be resolved to the satisfaction of the County, the County reserves the right to cancel the contract for cause.

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